Exhibit 1

Docket No. P-11121

ASSIGNMENT

WHEREAS we, JAMES WEB KASSEBAUM of the City of Indianapolis, County of Marion, State of Indiana, PAUL THOMAS PUGH of the City of Knightstown, County of Henry, State of Indiana, and WILLIAM WEBSTER THOMPSON of the City of Indianapolis, County of Marion, State of Indiana, have made an invention which is the subject of a PROVISIONAL PATENT APPLICATION, titled TOPICAL ORGANIC ECTOPARASITICIDAL FORMULATIONS; and comprising 20 pages (hereinafter the "Application"); and

WHEREAS ELI LILLY AND COMPANY, an Indiana corporation having its principal place of business at Lilly Corporate Center, Indianapolis, Indiana 46285, wishes to acquire our entire right, title, and interest in the Application and in all inventions disclosed in the Application;

NOW, THEREFORE, in consideration of the sum of one dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, we hereby sell, assign, transfer and set over unto Eli Lilly and Company, its successors and assigns (collectively, "Lilly") our entire right, title, and interest in, the Application and in all inventions disclosed therein; all rights of priority thereto pursuant to the International Convention for the Protection of Industrial Property; any and all present or future patent applications to such inventions that may be filed in the United States or any foreign country, inclusive of, but not limited to, continuations, continuations-in-part, divisions, substitutions, reexaminations, reissues, international applications under the Patent Cooperation Treaty ("PCT"), United States provisional patent applications, certificates of addition, utility models, petty patents, as well as all other intellectual property related to the Application, inclusive of, but not limited to, supplementary protection certificates, copyrights, trademarks, and data package exclusivity rights; and any and all Letters Patent of the United States and of all foreign countries and all related patent term extensions which may be granted for Letters Patent with respect to the Application; all of the above to be held and enjoyed by Lilly for its own use and enjoyment to the full end of the term or terms for which such Letters Patent and related intellectual property rights may be granted, as fully and entirely as the same would have been held and enjoyed by us had this Assignment and sale to Lilly not been made.

For ourselves and for our heirs, successors and legal representatives, we covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this Assignment.

For ourselves and for our heirs, successors and legal representatives, we further covenant and agree with Lilly that upon request we and they will, without further consideration than that now paid, but at the expense of Lilly: (i) execute original, provisional, substitute, continuation, divisional, continuation-in-part, reexamined, or reissued applications, amended specifications, or rightful declarations or oaths for such application; (ii) communicate to Lilly any facts known to us or them relating to such inventions or the history thereof; (iii) execute preliminary statements and testify in any interference proceedings, litigation discovery proceedings and depositions, oppositions, cancellation proceedings, priority contests, public use proceedings, administrative agency proceedings, litigation and other court actions and the like; (iv) execute and deliver any application papers, affidavits, declarations, assignments, or other instruments; and (v) do all other acts which, in the opinion of counsel for Lilly, may be necessary or desirable to secure the grant of Letters Patent and related intellectual property to Lilly or its nominees, in the United States and in all other countries where Lilly may

desire to have such inventions, or any of them, patented, with specifications and claims in such form as shall be approved by counsel for Lilly and to vest and confirm in Lilly or its nominees the full and complete legal and equitable title to all such Letters Patent and related intellectual property.

IN WITNESS WHEREOF we have executed this assignment on the date

indicated below.		
10/11/99	Page	web Kandraun
Date	James W	eb Kassebaum
10/1/99	-fan	O Thomas Ch
Date	Paul Th	omas Pugh
10/4/99	Suth	
Date	William	Webster Thompson
	UNITED STATES OF A	AMERICA
STATE OF INDIANA)) ss: (DATE) 10 11-99
COUNTY OF HANCOCK) 33.	
Before me. a	Notary Public for HAA	JCOCK County, State of
Indiana, personally	y appeared James Web Kass oregoing instrument this	ebaum and acknowledged the
19 <u>77</u> .		,
	<u> </u>	In M. Woxlan
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My Commission Expir	res	
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9	INTER CENTER OF A	MED TO
	UNITED STATES OF F	MERICA .
STATE OF INDIANA)) ss: (DATE) 10/7/99
COUNTY OF HANCOCK) ss: <u>1</u>	DRIE) /0///
Before me. a	Notary Public for Xame	County, State of
[ndiana, personally	y appeared Paul Thomas Pu oregoing instrument this	gh and acknowledged the
19 <u>99</u> .		γ
		atricia Luttedas
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07-27-06	<u> </u>	

UNITED STATES OF AMERICA

STATE OF INDIANA)) ss:	(DATE) /0/7/99
COUNTY OF HANCOCK)	
Before me, a Notary Public for	r <u>Ylancock</u> County, State of Mebster Thompson and acknowledged the
execution of the foregoing instrumer 1999.	t this 77H day of Office,
10 <u>11</u> .	- Patricia Litteda
	Notary Public
My Commission Expires	

SEP 2 9 2003_E x bit 2

READ PORTION COVER SHEET			
	S ONLY Attny Docket No. X-11121		
To the Honorable Commissioner of Patents and Trad	· · · · · · · · · · · · · · · · · · ·		
documents or copy thereof:	emarks. Flease lecold the actualied original		
1. Name of conveying party(ies):	2. Name & address of receiving party(ies):		
James Web Kassebaum	2. Name a didicab of receiving party (res).		
Paul Thomas Pugh	Name: Eli Lilly and Company		
William Webster Thompson	Name: all billy and company		
WIIIIAM MEDBLEI INOMPSON	Internal Address: Patent Division		
Additional name(s) of conveying party(ies)	Internal Address: Patent Division		
Attached? () Yes (X) No	Ctroot Address. Iilly Corners Contes		
Accached: () les (x) No	Street Address: Lilly Corporate Center		
	City, Indianapolic State, IN 7im, ACOME		
	City: Indianapolis State: IN Zip: 46285		
3. Nature of conveyance:	Additional name(s) & address(es) attached?		
(2)	/ / 2/ /2/ 27-		
(X) Assignment () Merger	() Yes (X) No		
() Security Agreement () Change of Name			
() Other			
Execution Date: July 21, 2000			
4. Application number(s) or patent Number(s)	•		
This document is being filed with a 35 U.S.C.	371 application of PCT/US00/19549,		
international filing date of 26 July 2000			
A. Patent Application No.(s): B.	Patent No.(s):		
Additional Numbers atta			
5. Name and address of party to whom	6. Total number of applications and		
correspondence concerning documents	patents involved: (1)		
should be mailed:	•		
	7. Total fee (37 CFR \$3.41) \$40.00		
Kimberly S. Rhoades	(\$40.00 per assignment)		
Eli Lilly and Company	(VIII of Por and Series)		
Lilly Corporate Center	() Enclosed		
Indianapolis, IN 46285	(X) Authorized to be charged to		
Indianaports, in 40205	deposit account (along with any		
	additional fees or the credit of		
	any overpayment) 8. Deposit account number: 05-0840		
DO NOT HAD			
DO NOT USE	THIS SPACE		
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9. Statement and signature.			
To the best of my knowledge and belief, t			
correct and any attached copy is a true of	opy of the original document.		
~ ? ~ ~	-		
John C. Demeter	Jon 24 2002		
Name of Attorney Signing Signature	Date		
Reg. No. 30,167			
Total number of pages including cover shee	t, attachments and document: (4)		
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I hereby certify that this paper or fee is being d "Express Mail Post Office to Addressee" service un	der 37 C P P 1 10 on the date indicated there		
and is addressed to the Assistant Commissioner for	Patents, Washington, D.C, 20231.		
Chuten (i'Homes Suren Strong			
Printed Name	Signature		

Docket No. X-11121

ASSIGNMENT

WHEREAS we, James Web Kassebaum, City of Indianapolis, County of Marion, State of Indiana; Paul Thomas Pugh, City of Knightstown, County of Henry, State of Indiana; and William Webster Thompson, City of Indianapolis, County of Marion, State of Indiana, have made an invention which is the subject of an international application under the Patent Cooperation Treaty ("PCT") patent application entitled TOPICAL ORGANIC ECTOPARASITICIDAL FORMULATIONS, containing 19 pages, and which is to be filled in the United States Patent and Trademark Cffice acting as PCT Receiving Office ("Application"); and we hereby authorize and direct our common representative to insert below the filing date and application number when they become known: PCT/US 00 /19549filed 7/26/00; and

WHEREAS ELI LILLY AND COMPANY, an Indiana corporation having its principal place of business at Lilly Corporate Center, Indianapolis, Indiana 46285, wishes to acquire the entire interest in all inventions disclosed in such Application;

NOW, THEREFORE, in consideration of the sum of one dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, we hereby sell, assign, transfer and set over unto Eli Lilly and Company, its successors and assigns (collectively "Lilly") our entire right, title and interest in, to and under the Application, including all priority rights for other countries arising therefrom, all inventions therein disclosed, and any and all present or future patent applications to such inventions that may be filed in the United States or any foreign country, inclusive of, but not limited to, continuations, continuations—in—part, divisions, substitutions, reexaminations, reissues, international applications under the Patent Cooperation Treaty ("PCT"), United States provisional patent applications, certificates of addition, utility models, petty patents, as well as all other intellectual property related to the Application, inclusive of, but not limited to, supplementary protection certificates, copyrights, trademarks, and data package exclusivity rights; and any and all Letters Patent of the United States and of all foreign countries and all related patent term extensions which may be granted for Letters Patent with respect to the Application; all of the above to be held and enjoyed by Lilly for its own use and enjoyment to the full end of the term or terms for which such Letters Patent and related intellectual property rights may be granted, as fully and entirely as the same would have been held and enjoyed by us had this Assignment and sale to Lilly not been made.

For ourselves and for our heirs, successors and legal representatives, we covenant that no assignment, sale, agreement or encumbrance

For ourselves and for our heirs, successors and legal representatives, we further covenant and agree with Lilly that upon request we and they will, without further consideration than that now paid, but at the expense of Lilly: (i) execute original, provisional, substitute, continuation, divisional, continuation-in-part, reexamined, or reissued applications, amended specifications, or rightful declarations or oaths for such application; (ii) communicate to Lilly any facts known to us or them relating to such inventions or the history thereof; (iii) execute preliminary statements and testify in any interference proceedings, litigation discovery proceedings and depositions, oppositions, cancellation proceedings, priority contests, public use proceedings, administrative agency proceedings, litigation and other court actions and the like; (iv) execute and deliver any application papers, affidavits, declarations, assignments, or other instruments; and (v) do all other acts which, in the opinion of counsel for Lilly, may be necessary or desirable to secure the grant of Letters Patent and related intellectual property to Lilly or its nominees, in the United States and in all other countries where Lilly may desire to have such inventions, or any of them, patented, with specifications and claims in such form as shall be approved by counsel for Lilly and to vest and confirm in Lilly or its nominees the full and complete legal and equitable title to all such Letters

has been or will be made or entered into which would conflict with this

Assignment.

Patent and related intellectual property.

Docket No. X-11121

IN WITNESS WHEREOF we have executed this assignment on the date indicated below. July 31 2000 James Web Kassebaum
UNITED STATES OF AMERICA
STATE OF INDIANA)) ss: COUNTY OF)
Before me, a Notary Public for Harenk County, State of Indiana, personally appeared James Web Kassebaum and acknowledged the execution of the foregoing instrument this lated day of July, 2000.
My commission expires:
April 10,2008
July 21, 2000 Paul Thomas Pugh Paul Thomas Pugh
UNITED STATES OF AMERICA
STATE OF INDIANA) SS: COUNTY OF)
Before me, a Notary Public for Janeske County, State of Indiana, personally appeared Paul Thomas Pugh and acknowledged the execution of the foregoing instrument this 210+ day of 2000.
Notary Public
My commission expires:

april 10, 2008

Docket No. X-11121

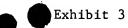
UNITED STATES OF AMERICA

STATE OF INDIANA

COUNTY OF

Before me, a Notary Public for Homoson and acknowledged the execution of the foregoing instrument this 20t day of 4000.

My commission expires:



PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

51) International Patent Classification 6:		(11) International Publication Number: WO 00/01347
A61K	A2	(43) International Publication Date: 13 January 2000 (13.01.00
21) International Application Number: PCT/U 22) International Filing Date: 21 June 1999 30) Priority Data: 60/091.658 2 July 1998 (02.07.98) 71) Applicant (for all designated States except US): I AND COMPANY [US/US]; Lilly Corporate Canapolis, IN 46285 (US). 72) Inventor; and // 75) Inventor/Applicant (for US only): SNYDER, D [US/US]; 7348 Yorkshire Boulevard, Indianapoli (US). 74) Agents: GRAY, Edouard, P. et al.; Eli Lilly and Lilly Corporate Center, Indianapolis, IN 46285 (IS).	ELI LILI Jenter, Inc Daniel, Ea is, IN 462	BY, CA, CN, CU, CZ, EE, GD, GE, GH, GM, HR, HU, IE II., IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RI SD, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KC KZ, MD, RU, TJ, TM), OAPI patent (BF, BJ, CF, CG, C CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published Without international search report and to be republishe upon receipt of that report.
54) Title: FORMULATIONS FOR CONTROLLING 1 57) Abstract Safer pediculicidal formulations comprising a spinocceptable carrier, and methods of controlling lice infest	osyn, or a	physiologically acceptable derivative or salt thereof, and a physiological



US006063771A

United States Patent [19]

Snyder

4,927,813 5,202,242

5,227,163

5,288,483

5,496,931

[11] Patent Number:

6,063,771

[45] Date of Patent:

May 16, 2000

[54]	FORMUL HUMAN I	ATIONS FOR CONTROLLING LICE
[75]	Inventor:	Daniel Earl Snyder, Indianapolis, Ind.
[73]	Assignce:	Eli Lilly and Company, Indianapolis, Ind.
[21]	Appl. No.:	09/338,116
[22]	Filed:	Jun. 22, 1999
[52]	Int. Cl. ⁷ U.S. Cl	ated U.S. Application Data application No. 60/091,658, Jul. 2, 1998.
[56]	rieid of Se	References Cited
	U.S	S. PATENT DOCUMENTS

5/1990 Bernstein 514/65

4/1993 Mynderse et al. 435/76

7/1993 Eini et al. 424/195.1

2/1994 Cardin et al. 424/70

3/1996 Boeck et al. 536/7.1

5.591.606	1/1997	Turner et al 435/76
-,-,		Turner et al 536/6.5
5,840,861	11/1998	Mynderse et al 536/16.8

OTHER PUBLICATIONS

CA130:193066, Sparks et al, J. Econ. Entomol., 91(6), 1277-1283, 1998.

CA126:234728, Deamices et al., ACS Sympos. Ser, 658, 144-154, 1997.

C.V. DeAmicis et al. "Physical and Biological Properties of the Spinosyns: Novel Macrolide Pest-Control Agents from Fermentation," American Chemical Society Symposium Series: *Phytochemicals for Pest Control*, Chapter 11, pp. 144-154 (1977).

Primary Examiner—Rebecca Cook Attorney, Agent, or Firm—Frederick D. Hunter

[57] ABSTRACT

Safer pediculicidal formulations comprising a spinosyn, or a physiologically acceptable derivative or salt thereof, and a physiologically acceptable carrier, and methods of controlling lice infestations in a human with these formulations are provided.

14 Claims, No Drawings



US006342482B1

(12) United States Patent Snyder

(10) Patent No.:

US 6,342,482 B1

(45) Date of Patent:

*Jan. 29, 2002

(54) FORMULATIONS FOR CONTROLLING HUMAN LICE

(75) Inventor: Daniel Earl Snyder, Indianapolis, IN

(US)

(73) Assignce: Eli Lilly and Company, Indianapolis, IN (US)

(*) Notice:

Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: 09/543,441

(22) Filed: Apr. 5, 2000

Related U.S. Application Data

(63)	Continuation of application No. 09/338,116, filed on Jun. 22,
` ′	1999, now Pat. No. 6,063,771.

(60) Provisional application No. 60/091,658, filed on Jul. 2,

(51)	Int. Cl.	7 A61K 31/76
(52)	U.S. Cl.	514/31: 514/880

(58) Field of Search 514/31

(56) References Cited

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4,927,813 A 5/1990 Bernstein 5,202,242 A 4/1993 Mynderse et al.

5,227,163 A 5,288,483 A 5,496,931 A 5,571,901 A 5,591,606 A 5,767,253 A	2/1994 3/1996 11/1996 1/1997 6/1998	Eini et al. Cardin et al. Boeck et al. Boeck et al. Turner et al. Turner et al.
5,840,861 A		Mynderse et al.

FOREIGN PATENT DOCUMENTS

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wo	92 05764	4/1992
wo	93 09126	5/1993

OTHER PUBLICATIONS

C.V. DeAmicis, et al, "Physical and Biological Porperties of the Spinosyns: Novel Macrolide Pest-Control Agents from Fermentation," *American Chemical Society Symposium* Series: Phytochemicals for Pest Control, Chapter 11, pp. 144-154 (1997).

CA 130: 193066, Sparks, et al., J. Econ. Entomol., 91 (6) 1277-1283 (1998).

CA 126: 234728, de Amicis, et al., ACS Sympos. Ser. 635, 144-154 (1997).

Primary Examiner—Rebecca Cook (74) Attorney, Agent, or Firm—John C. Demeter

(57) ABSTRACT

Safer pediculicidal formulations comprising a spinosyn, or a physiologically acceptable derivative or salt thereof, and a physiologically acceptable carrier, and methods of controlling lice infestations in a human with these formulations are provided.

12 Claims, No Drawings

Exhibit 4

SEP 2 9 2003

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Arlington, VA 22202, on the date appearing below.

By 45 Khoades

ELI LILLY AND COMPANY
Date

12-13-02

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : James Web Kassebaum, et al.

Serial No. : 10/048,242

) Group Art Unit:

Filed : September 13, 2002) 1614

For : TOPICAL ORGANIC

ECTOPARASITICIDAL FORMULATIONS)

Docket No. : X-11121

REQUEST FOR CORRECTED FILING RECEIPT

Assistant Commissioner for Patents Office of Initial Patent Examination Customer Service Center Arlington, VA 22202 Sir:

Applicants request correction of the filing receipt for this application. A copy of the receipt, with the corrections noted, is enclosed.

Under the heading "Domestic Priority data as claimed by applicant," please replace the current text with -This application is a 371 of PCT/US00/19549 07/26/2000, which claims priority from U.S. provisional application no. 60/148,508, filed August 12, 1999.

Applicants therefore request that the filing receipt be corrected.

Respectfully submitted,

John C. Demeter

Attorney for Applicants

Registration No.

Phone: 317-276-3785

Eli Lilly and Company Patent Division

P.O. Box 6288

Indianapolis, Indiana 46206-6288

December 11,2002

Enclosure: Copy of Filing Receipt with the changes noted thereon.





DRAWINGS GRP ART UNIT FIL FEE REC'D ATTY.DOCKET.NO TOT CLAIMS IND CLAIMS APPLICATION NUMBER FILING DATE 1570 X-11121 15 1614 10/048,242 / 09/13/2002

CONFIRMATION NO. 2645

25885 **ELI LILLY AND COMPANY** PATENT DIVISION P.O. BOX 6288 **INDIANAPOLIS, IN 46206-6288** **FILING RECEIPT** HEDOURDUNGERALE

Date Mailed: 12/03/2002

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

James Web Kassebaum, Indianapolis, IN; Paul Thomas Pugh, Knightstown, IN; 🗸 William Webster Thompson, Indianapolis, IN;

Domestic Priority data as claimed by applicant

This application is a 371 of PCT/US00/19549 07/26/2000, which claims priority from u. 5. provisional application no (po/148,508, filed August 12, 1999. Foreign Applications

Projected Publication Date: None, application is not eligible for pre-grant publication

Non-Publication Request: No

Early Publication Request: No

0EC 16 A02

Title

Topical organic ectoparasiticidal formulations

Preliminary Class



PATENT	X-11(2) JCD Dkt. No Atty
RECEIVED BY THE UN	NITED STATES
PATENT AND TRADEN	IARK OFFICE
	Interference No
Filed: September 13 2002	Parties:
Applicants: Kassebaum etal	
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Response	Amendment/Response
IDS/1449	Assignment/Cover Sheet
Notice of Appeal	Issue Fee
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